

multiplicity of poles.

15. A motor assembly as claimed in claim 9 wherein the span of the bearings extends axially above and below the discs.

Remarks

This amendment is submitted in response to the Office Action dated October 4, 2002, reconsideration and allowance of the claims is requested. In this Office Action, Figures 1-3 were requested to be designated as prior art. In the attached formal drawings, it can be seen that this designation is adopted

A new title is requested. Therefore, the words low profile are added before the rest of the title.

At paragraph 3, claim 14 is objected to as being of improper dependent form. Therefore, claim 14 now depends from claim 10.

Claims 9, 10 and 12 are rejected as anticipated by Marcum, U.S. 3,047,869. This rejection is respectfully traversed. As can be seen in Figures 4 and 5, in the present application, the shaft is supported by bearings which have a sufficient span along the shaft that they support so that the bearing span extends at least partially outside of the well where the magnet and stator are located. This allows the disc or discs which are supported from the hub to be located along the bearing span rather than above the bearing span. In contrast, Marcum shows a design where disc is supported above the bearing span making it difficult to support for stable rotation.

Claims 9 through 11 are rejected as anticipated by Komatsu. Although it is not apparent how this design could be adapted to rotate a disc in a disc drive since no space is provided for such use and therefore the rejection for anticipation must immediately fail, it is also apparent that any disc would be rotated above the end of the bearing span and thus could not be stably supported for rotation.

Claims 9, 10 and 12 are rejected as unpatentable over Herdman, U.S. 3,864,748 and Kazama, U.S. 4,875,110. Herdman shows a disc drive wherein the disc 28 is supported for rotation far above the bearing span comprising the bearings 34. Therefore, the Herdman design uses excessive space, and cannot support the shaft with sufficient stability to provide a successful and useable disc drive design. Such a design is uniquely taught and claimed in the present application and not in the references.

At paragraph 9, claims 11, 13 and 14 are rejected as unpatentable over Marcum and Lin, U.S. 4,965,476. The inapplicability of Marcum to the present invention has been already clearly discussed above. The same comments would apply to this rejection in demonstrating the sufficiency of the rejection.

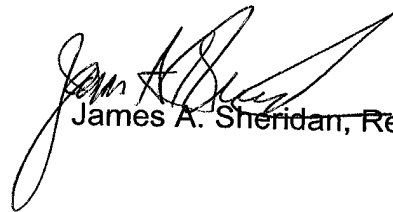
At paragraph 10, claims 11, 13 and 14 are rejected as unpatentable over Herdman '748 and Kazama '110 and Lin '476. This rejection is respectfully traversed. However, the Herdman reference is clearly insufficient to teach the stable low profile design of the present invention as discussed and claimed above. Therefore, withdrawal of this rejection and the rejections of the preceding paragraphs is respectfully requested.

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At paragraph 11 and 12, claim 9 is rejected as double patenting of claim 30 of an earlier patent in this family. It is respectfully requested that a terminal disclaimer not be demanded until the issue of patentability of the claims is finally resolved. If at such time a terminal disclaimer is still desired by the Examiner, it will be submitted.

Respectfully submitted,



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VERSION TO SHOW MARKINGS

9. (Amended) A motor assembly for rotating a disc within a disc drive including a disc housing for enclosing the motor & disc, comprising
- a fixed shaft
 - a spindle hub rotating coaxially about the fixed shaft having a first po[si]tion for supporting a disc,
 - bearings for rotatably supporting the hub for rotations about the shaft, the bearings being located at least in part axially outside the well and radially within the hub;
 - a magnet supported on a lower portion of the hub,
 - the housing comprising upper and lower casing sections fixed together to define the enclosed housing,
 - the lower casing defining a well,
 - a stator having a plurality of windings supported from an inner surface of the well and cooperating with the magnet to cause rotation of the hub.
10. (Unchanged) A motor assembly as claimed in claim 9 wherein the magnet and stator are radially aligned and located within the well.
11. (Unchanged) A motor assembly as claimed in claim 9 wherein the magnet comprises an annular ring including a magnetic material, the ring being magnetized to include a multiplicity of poles.
12. (Unchanged) The motor of claim 9 wherein the spindle hub includes the first support surface for supporting one or more discs comprising a section of the hub thicker than the remainder of the hub.

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13. (Unchanged) A motor assembly as claimed in claim 12 wherein the magnet comprises an annular ring including a magnetic material, the ring being magnetized to include a multiplicity of poles.
14. (Amended) A motor assembly as claimed in claim [13] 10 wherein the magnet comprises an annular ring including a magnetic material, the ring being magnetized to include a multiplicity of poles.
15. (New) A motor assembly as claimed in claim 9 wherein the span of the bearings extends axially above and below the discs.